

THIE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Syngenta Seeds, Inc.

MOCCUS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITIORY AS PROVIDED BY LAW, THE CHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR VING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE URPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOMATO

'SENG 9170'

In Testimony Marcost, I have hereunto set my hand and caused the seal of the Mant Haristy Irotection Office to be affixed at the City of Washington, D.C. this twenty-third day of November, in the year two thousand and seven.

Atlaste

Oc-Je

Commissioner Plant Variety Protection Office Agricultural Marketing Service Secretary of S

				Tomirippiorou omerto: 0001 0000	
	U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE		The following statements are made in a the Paperwork Reduction Act (PRA) of	ccordance with the Privacy Act of 1974 (5 U.S.C. 552a) and 1995.	
	APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse)		Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).		
	1. NAME OF OWNER Syngenta Seeds, Inc.		TEMPORARY DESIGNATION OR EXPERIMENTAL NAME	SENG 9170' Per mail	
	4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZiP Code, and Country)		5. TELEPHONE (include area code)	FOR OFFICIAL USE ONLY	
	600 North Armstrong Place		208-465-8522	PVPQ NUMBER	
	Boise, ID 83704		6. FAX (include area code)	#200700301	
			208-467-4559	FILING DATE	
	7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) 8. IF INCORPORATED, GIVE FORM OF STATE OF INCORPORATED, GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) Delaware	ATION:	9. DATE OF INCORPORATION	May 4,2007	
٠.	Corporation		February 25, 1975		
	10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION	. (First pers	son listed will receive all papers)	F FILING AND EXAMINATION FEES:	
	Kim Briggs			R DATE 05-04-2007	
	c/o Syngenta Seeds, Inc.			CERTIFICATION FEE:	
	6338 Highway 20-26			1 740 -	
	Nampa, ID 83687			E DATE 9/2/1/07	
-	11. TELEPHONE (Include area code) 12. FAX (Include area code)		13. E-MAIL		
	208-465-8522 208-467-455	9	kim.briggs@syng		
	14. CROP KIND (Common Name) 16. FAMILY NAME (Botanical)			N ANY TRANSGENES? (OPTIONAL)	
_	15. GENUS AND SPECIES NAME OF CROP 17. IS THE VARIETY A FIRST GENERATION I		YES NO	SIGNED USDA-APHIS REFERENCE NUMBER FOR THE	
J	15. GENUS AND SPECIES NAME OF CROP 17. IS THE VARIETY A FIRST GENERATION IN LYCOPETS 1 CON 15. IN 15	HYBRID?	APPROVED PETITION TO DE	EREGULATE THE GENETICALLY MODIFIED PLANT FOR	
_	19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED		COMMERICALIZATION.		
	(Follow instructions on reverse)		OF CERTIFIED SEED? (See	THAT SEED OF THIS VARIETY BE SOLD AS A CLASS Section 83(a) of the Plant Variety Protection Act)	
٠.	a. Æ Exhibit A. Origin and Breeding History of the Variety		YES (If "yes", answer its	ems 21 and 22 below) 🌠 NO (If "no", go to item 23) THAT SEED OF THIS VARIETY BE LIMITED AS TO	
b.			NUMBER OF CLASSES?		
	c. Exhibit C. Objective Description of Variety		☐ YES ☐ NO		
	d. Exhibit D. Additional Description of the Variety (Optional)			☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED THAT SEED OF THIS VARIETY BE LIMITED AS TO	
	e. Exhibit E. Statement of the Basis of the Owner's Ownership		NUMBER OF GENERATIONS		
•	f. Z Exhibit F. Declaration Regarding Deposit g. Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verifica		☐ YES ☐ NO		
	that tissue culture will be deposited and maintained in an approved public repository)	tton		R 1,2,3; etc. FOR EACH CLASS.	
	g. Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)		☐ FOUNDATION ☐ REG	SISTERED L. CERTIFIED Instance indicated on the reverse.)	
.2	3. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. O OTHER COUNTRIES?	R		IPONENT OF THE VARIETY PROTECTED BY LIGHT (PLANT BREEDER'S RIGHT OR PATENT)?	
	☐ YES NO		☐ YES 【 NO		
٠,	IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USI FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)	E		RY, DATE OF FILING OR ISSUANCE AND ASSIGNED b use space indicated on reverse.)	
2	The owners declare that a viable sample of basic seed of the variety has been furnished with applie for a tuber propagated variety a tissue culture will be deposited in a public repository and maintain	cation and ned for the	will be replenished upon request in acc duration of the certificate.	ordance with such regulations as may be applicable, or	
	The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.	variety, and	l believe(s) that the variety is new, distir	nct, uniform, and stable as required in Section 42, and is	
	Owner(s) is (are) informed that false representation herein can jeopardize protection and result in p	enalties.			
SI	GNATURE OF OWNER	SIGNA	TURE OF OWNER		
	Kim Bigge				
	MME (Please print or type) im Briggs	NAME	(Please print or type)		
	PACITY OR TITLE DATE		CITY OR TITLE	DATE	
P	VP Specialist 4-26-2007				

(See reverse for instructions and information collection burden statement)

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

#200700301

Homepage: http://www.ams.usda.gov/science/pvpo/pvpindex.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is o581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Plant Variety Protection

Exhibit A Origin and Breeding History

SENG 9170

The parental line SENG9170 was developed at Syngenta El Ejido Reasearch Station (Spain), from a cross between two commercial varieties (Petula from Limagrain used as female and Anastasia from Seminis used as male).

The breeding method was pedigree selection. The aim was to develop a segregating population in which we could select plants with short internodes and resistance to TYLCV.

- In January 2002, 150 plants of the F2 segregating population was planted under staked plot # 2ALP220331 and 11 plants were selected.
- June 2002, the 11 F3 were planted (25 plants each) with staked plot# 2AGA22435.1-2AGA22435.11, We selected 15 plants and harvested the seeds. The seeds were sent to out pathology department in France.
- January 2003, the 15 F4 lines were planted (15 each) with staked plot# 3ALP26100.1-3ALP26100.15, and we selected 10 plants. Each plant selected was sent to our Pathology department in France for disease testing.
- July 2003, 5 F5 lines were planted (10 plants each) with staked plot# 3ALA21405.1-3ALA21405.10, and in this case 3 plants were selected.
- January 2004 the 3 F6 were planted (10 plants) under staked plot#
 4ALP28027.1-4ALP28027.3-. In this case the 3 plants were selected and sent to France for disease test confirmation.
- June 2004, 1 F7 resistant to TYLCV and short internodes were planted and studied for stability, confirming it was stable and designated as SENG9170. Seeds from this plant were harvested and sent to our production Department in Holland.

Two separate stability tests were conducted at our Holland location during the fall of 2004 (July – Dec) and spring 2005 (Jan – May) and found the line to be stable.

The main criteria for selection was disease resistances, short internodes plant and fruit firmness.

SENG 9170 is uniform and stable within commercially acceptable limits. A small percentage of variants can occur as other tomato varieties with commercial acceptance limits. However no variants were observed during the two years in which the variety was observed to be uniform and stable.

Exhibit B

Statement of Distinctness.

SENG 9170

SENG 9170 is described as a parent line to produce fresh market tomato hybrids. The novelty of SENG 9170 is characterized as a variety with short internodes plant, good fruit firmness and resistance to TYLCV and ToANV.

SENG 9170 is most similar to Anastasia, but the characteristics that most distinguish the two varieties, but may not be limited to, are:

- o SENG 9170 has a plant with horizontal leaves orientation while Anastasia has pending leaves.
- o SENG 9170 is a short internodes plant while Anastasia is a long internodes plant.
- o Canopy size is small compared to Anastasia which is medium.



SENG 9170 APP. NO.: 2007 0030



Form Approved OMB NO 0581-0055

REPRODUCE LOCALLY. Include form number and date on all reproductions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

EXHIBIT C

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY

	TOM	ATO (Lycopersion	con escule	entum)
NAME OF APPLICANT (S)	TEMPOR/	ARY OR EXPERIMENTAL DESIG	NATION	VARIETY NAME
Syngenta Seed	Is the.			SENG 9170
ADDRESS (Street and No. or RD No., City, State,	Zip Code, and Country)			TOR OFFICIAL USE ONLY
600 North Armstrong Place Boise, Idaho 83704				PVPO NUMBER
Boise, Ida	ho 8370	4		#200700301
Choose responses for the following cha	aracters which best fit you	r variety. Complete this form	as fully as possib	ble for best characterization of the variety. When a single
quantitative value is requested (e.g., fru	uit weight), your answer sh	nould be the mean of an adequ	ate-sized, unbias	sed sample of plants. Use leading zeros when necessary (e.g., 0 9 or
				same type (see list of recommended check varieties below), and
				ditions of culture for the variety. Indicated by check whether trial
				staked Give locations and dates of seeding and transplanting
here: <u>Culiacan</u> ,				
Culiacan,	Mexico,	AUGUST	15, 200	27
Cullacan,	MEXICO,	Hugust 1	0, 20E	/5
COMPARISONS SHOULD BE MAI THE CHECK IN BOXES WHERE II	DE TO ONE OR MORE DENTITY OF CHECK IS	CHECK VARIETIES IN TI REQUESTED.	HE FOLLOWIN	G LIST. IF AT ALL POSSIBLE, ENTER THE NUMBER OF
•	= Homestead 24	13 = Red Rock	19 = V	
	= Marglobe = Murietta	14 ≃ Roma VF 15 = Rutgers	20 = U 21 = V	S 28 F 145 B 7879
4 = Flora Dade 10	= New Yorker	16 = Sunray	22 = O	ther (Specify) DANIELA
•	= Ohio MR-13 ! = Red Cherry Large	17 = Tropic 18 = UC 82		ther (Specify)ther (specify)
1. SEEDLING				
_2 Anthocyanin in hypocotyl of	2 – 15 cm seedling: 1 =	Absent 2 = Present	_1_ H	abit of 3 – 4 week old seedling: 1 = Normal 2 = Compact
2. MATURE PLANT (at maximum	vegetative development)		
1 Growth: 1 = Indeterminate	2 = Determinate			
	ormal 3 = Compact 4	= Dwarf 5 = Brachytic		
_1 Size of canopy (compared to	o others of similar type):	1 = Small 2 = Medium 3	3 = Large	
_2 Habit: 1 = Sprawling (decum	ibent) 2 = Semi-Erect	3 = Erect ('Dwarf Champi	on')	

3. STEM

- _2 Branching: 1 = Sparse ('Brehm's Solid Red', 'Fireball') 2 = Intermediate ('Westover') 3 = Profuse ('UC 82') # 2 0 0 7 0 0 3 0 1
- 1 Branching at cotyledonary or first leafy node: 1 = Present 2 = Absent
- 4 No. of nodes between first inflorescences: 1 = 1-4 2 = 4-7 3 = 7-10 4 = 10 or more
- 3 No. of nodes between early (1st 2nd, 2nd 3rd) inflorescences.
- 3 No. of nodes between later developing inflorescences.
- 2 Pubescence on younger stems: 1 = Smooth (no long hairs) 2 = Sparsely hairy (scattered long hairs) 3 = Moderately hairy 4 = Densely hairy or wooly

4. LEAF (mature leaf beneath the 3rd inflorescences)

- 1 Type: 1 = Tomato 2 = Potato ('Trip-L-Crop')
- 2 Morphology (choose illustration at the end of this form that is most similar)
- _2_ Margins of major leaflets: 1 = Nearly entire 2 = Shallowly toothed or scalloped 3 = Deeply toothed or cut, sps. Toward base
- 2 Marginal rolling or wiltiness: 1 = Absent 2 = Slight 3 = Moderate 4 = Strong
- 2 Onset of leaflet rolling: 1 = Early-Season 2 = Mid-Season 3 = Late Season
- 2 Surface of major leaflets: 1 = Smooth 2 = Rugose (bumpy or veiny)
- 2 Pubescence: 1 = Smooth (no long hairs) 2 = Normal 3 = Hirsute 4 = Wooly

INFLORESCENCE (make observations on 3rd inflorescence)

- 1 Type: 1 = Simple 2 = Forked (2 major axes) 3 = Compound (much branched)
- 0 6 Number of flowers in inflorescence. Average
- 1 Leafy or "running" inflorescences: 1 = Absent 2 = Occasional 3 = Frequent

6. FLOWER

- 1 Calyx: 1 = Normal, lobes awl-shaped 2 = Macrocalyx, lobes large, leaflike 3 = Fleshy
- 2 Calyx-lobes: 1 = Shorter then corolla 2 = Approx. equalling corolla 3 = Distinctly longer than corolla
- 1 Corolla color: 1 = Yellow 2 = Old Gold 3 = White or Tan
- 2 Style pubescence: 1 = Absent 2 = Sparse 3 = Dense
- 1 Anthers: 1 = All fused into tube 2 = Separateing into 2 or more groups at anthesis
- Fasciation (1st flower of 2nd or 3rd inflorescence): 1 = Absent 2 = Occasionally present 3 = Frequently present

7. FRUIT (3rd fruit of 2nd or 3rd cluster) For the first 5 characters below, match your variety with the most similar illustration on pages at the end of this form.

_1 Typical fruit shape

- 2 Shape of transverse section
- _2 Shape of stem end
- __1_ Shape of blossom end
- 2 Shape of pistil scar

- 1 Abscission layer: 1 = Present (pedicellate) 2 = Absent (jointless)
- 1 Point of detachment of fruit at harvest: 1 = At pedicel joint 2 = At calyx attachment
- 0 8 mm Length of dedicel (from joint to calyx attachment)
- 0 5 0 mm Length of mature fruit (stem axis)
- 0 5 3 mm Length, check var. no.
- 0 7 5 mm Diameter of fruit at widest point
- 0 6 mm Diameter, check var. no.
- 1 6 0 g Weight of mature fruit
- 1 4 0 g Weight, check var. no.

- 3 No. of locules: 1 = Two 2 = Three and four 3 = Five or more
- 1 Fruit surface: 1 = Smooth 2 = Slight ly rough 3 = Moderately rough or ribbed
- 3 Fruit base color (mature-green stage):
 - 1 = Light Green ('Lanai', 'VF 145-F5') 2 = Light Gray-Green 3 = Apple or Medium Green ('Heinz 1439 VF') 4 = Yellow Green 5 = Dark Green
- 1 Fruit Pattern (mature-green stage): 1 = Uniform Green 2 = Green-Shouldered 3 = Radial Stripes on Sdes of Fruit

		UIT (continued)	"2007007 o.a
		Shoulder color if different from base: 1 = Dark Green 2 =	Grey Green 3 = Yellow Green # 2 0 0 7 0 0 3 0 1
	5	Fruit color, full-ripe: 1 = White 2 = Yellow 3 = Orange 4	= Pink 5 = Red 6 = Brownish 7 = Greenish 8 = Other (specify)
•	_3_	Flesh color, full-ripe: 1 = Yellow 2 = Pink 3 = Red/Crimso	on 4 = Orange 5 = Other (specify)
	1	Flesh color: 1 = Uniform 2 = With lighter and darker areas	s in walls
	3_	Locular gel color of table-ripe fruit: 1 = Green 2 = Yellow	3 = Red
	1	Ripening: 1 = Blossom-to-stem end 2 = Uniform	
	1	Ripening: 1 = Inside out 2 = Uniformly 3 = Outside in	
	2	Stem scar size: 1 = Small ('Roma') 2 = Medium ('Rutgers'	') 3 = Large
	2	Core: 1 = Coreless (absent or smaller than 6x6 mm) 2 = F	Present
	2	Epidermis color: 1 = Colorless 2 = Yellow	
	1	Epidermis: 1 = Normal 2 = Easy-peel	
	2	Epidermis texture: 1 = Tender 2 = Average 3 = Tough	
	8	Thickness of pericarp <u>8.6</u>	Thickness of pericarp. Check var. no. 2 2
	2	Anthocyanin in hypocotyl of 2 – 15 mc seedling: 1 = Absent	t 2 = Present Habit of 3 - 4 week old seedling: 1 = Normal 2 = Compact
8.	RES	SISTANCE TO FRUIT DISORDER (Use code: 0 = Unknown	1 = Susceptible 2 = Resistant)
	2_	Blossom end rot Catface	Fruit pox Zippering
	_	Blotchy ripening Cracking, concentric	Gold fleck Other (specify)
		Bursting Cracking, radial	2 Graywall
a	DIS	EASE AND PEST REACTION (Use code: 0 = Unknown 1	= Susceptible 2 = Resistant) NOTE: If claim of novelty is based wholly or in substantial part
up	on di		ould specify the method of testing, the reaction of the application variety, and reaction of well-
up kn	on di own	isease resistance, trial data should be appended. These sh	
up kn	on di own iral E	isease resistance, trial data should be appended. These should be appended.	
up kn	on di own iral E	isease resistance, trial data should be appended. These should be appended.	ould specify the method of testing, the reaction of the application variety, and reaction of well- 2 Tobacco mosaic, Race22
up kn	on di own iral E	isease resistance, trial data should be appended. These should be appended by name).	ould specify the method of testing, the reaction of the application variety, and reaction of well- Tobacco mosaic, Race2² Tomato spotted wilt
up kn	on di own iral E	isease resistance, trial data should be appended. These should be appended by a should be appended by a should be appended. These should be appended by a should be appended. These should be appended by a should be appended by a should be appended. The should be appended by a should be ap	ould specify the method of testing, the reaction of the application variety, and reaction of well- Tobacco mosaic, Race2² Tomato spotted wilt
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up kn	on di own iral E	isease resistance, trial data should be appended. These shocheck varieties grown in the trial (identified by name). Diseases: Cucumber mosaic Curly top 2 Tobacco mosaic, Race 0 Potato-Y virus 2 Tobacco mosaic, Race 2 Blotchy ripening Cracking, concentric	
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up kn V	on di own iral E	isease resistance, trial data should be appended. These shocheck varieties grown in the trial (identified by name). Diseases: Cucumber mosaic Curly top 2 Tobacco mosaic, Race 0 Potato-Y virus 2 Tobacco mosaic, Race 1 Potato-Y virus 2 Tobacco mosaic, Race 2 Blotchy ripening Cracking, concentric Other virus (specify) TYLCV, Torrado Virus rial Diseases: Bacterial canker (Corynebacterium miciganense) Bacterial soft rot (Erwinia corotovora)	
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B F	on diown iral [isease resistance, trial data should be appended. These shocheck varieties grown in the trial (identified by name). Diseases: Cucumber mosaic Curly top 2 Tobacco mosaic, Race 0 Potato-Y virus 2 Tobacco mosaic, Race 1 Potato-Y virus 2 Tobacco mosaic, Race 2 Blotchy ripening Cracking, concentric Other virus (specify) TYLCV, Torrado Virus rial Diseases: Bacterial canker (Corynebacterium miciganense) Bacterial soft rot (Erwinia corotovora) Bacterial speck (Pseudomonas tomato) Il Diseases: Anthracnose (Colletotrichum spp.) Brown root rot or corky root (Pyrenochaeta lycopersici) Collar rot or stem canker (Alternaria solani) Early blight defoliation (Alternaria solani)	

9. DISEASE AND PEST REACTION (continued)				
Fungal Diseases:			#200	700301
Gray leaf spot (Stemphylium spp.)	2 Vertic	illium wilt, Race 1 (<i>V. alt</i>		,,,,,,,
Late blight, Race 0 (Phytophthora infestans)	Vertic	illium wilt Race 2		
Late blight, Race 1	Other	fungal disease (specify)		
Insects and Pests:				
Colorado potato beetle (Leptinotarsa decemline	ata) Tomaí	to hornworm (<i>Manduca</i> d	quinquemaculata)	
Southern root knot nematode (Meloidogyne inco	ognita) Tomaí	to fruitworm (<i>Heliothis ze</i>	ea)	
Spider mites (Tetranychus spp.)	White	lly (<i>Trialeurodes vaporar</i>	iorum)	
Sugar beet army worm (Spodoptera exigual)	Other	(specify)		
Tobacco flea beetle (Epitrix hirtipennis)				•
Pollutants:				
Ozone Sulfur dioxide	Other (specify)		
CHEMISTRY AND COMPOSITION OF FULL-RIPE Bull. 27-L. Please specify test methods or give a re known check variety of similar type grown in the sa	eference to methods use	d. Fill in table below wit or numbers of check va	h values for the new varie rieties.	ty and for at lease one well-
	Submitted Variety	Check Variety	Check Variety	Check Variety
рН	_			
Titratable acidity, as % citric				
Total solids (dry matter, seeds and skin removed)				
Soluble solids as ^o Brix	!		<u> </u>	
PHENOLOGY Express length of developmental state used, indicate the base temperature used in their carefor at least one check variety; identify checks by national contents.	alculatoin hear°C.	See paper by Warnock	owing degree days), in deg under "References" for m	prees Celsius. If heat units are nethod. Give comparative data
	Application Variety	Check Variety	Check Variety	Check Variety
Seeding to 50% flow (1 open on 50% of plants)	-			
Seed to once over harvest (if applicable)				
2 Fruiting season: 1 = Long ('Marglobe) 2 = Medic	um ('Westover') 3 = Sho	ort, concentrated ("VF 14	45') 4 = Very concentrate	d ('UC 82')
4 Relative maturity in areas tested: 1 = Early 2 = (If relative mat			5 = Late 6 = Variable it, please explain on separ	ate sheet)
12. ADAPTATION If more than one category applies, lie	st all in rank order.			
2 Culture: 1 = Field 2 = Greenhouse				
2 Principle use(s): 1 = Home garden	2 = Fresh market 3 = V	Vhole-pack canning 4	= Concentrated products	
5 = Other (specify)				
1 Machine harvest: 1 = Not adapted 2 = Adapted				
Regions to which adaptation has be 1 = Northeast 2 = Mid Atlant 6 = South-central 7 = Intermoun 10 = California: Coastal Areas 11 = California	tic 3 = Sou ntain West 8 = Nor	thwest 9	4 = Florida 9 = California: Sacramento	5 = Great Plains o and Upper San Joaquin Valley

ILLUSTRATIONS OF TOMATO LEAF AND FRUIT CHARACTERISTICS

4. LEAF

Morphology:

#200700301



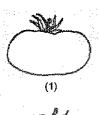




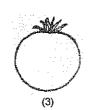


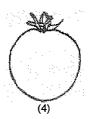
7. FRUIT

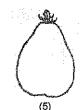
Typical fruit shape:

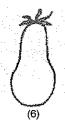




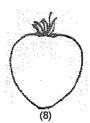


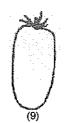














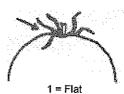
Shape of transverse section:

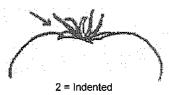




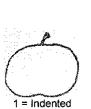


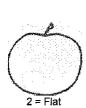


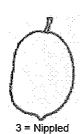




Shape of blossom end:



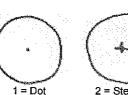


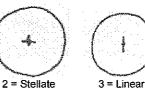


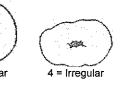


Shape of pistil scar:

Shape of stem end:







#2007003 Q169170

REFERENCES

- Anonymous, 1976. All About Tomatoes. Ortho Books, Chevron Chemical Co., San Francisco. In three volumes: Midwest/Northeast Edition, West Edition, and South Edition.
- Ware, G.W. & J.P. McCollum, 1968. Producing Vegetable Crops. The Interstate Printer & Publishers, Inc., Danville, Illinois. Chapter 30, pp. 451-473, "Tomatoes".
- Warnock, S.J. 1978. Using Tomato Heat Units. Leaflet No. 6, Campbell Institute for Agricultural Research, Camden, NJ. 10 p.
- Webb, R.E., T.H. Barksdale, & A.K. Stoner, 1973. "Tomatoes", pp. 344-361, in: Nelson, R.R. (Ed.), Breeding Plants for Disease Resistance. Pennsylvania State University Press, University Park.
- Young, P.A. & J.W. MacArthur, 1947. Horticultural characters of tomatoes. Bull. Texas Agric. Exper. Station No. 698.

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U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	Application is required in order to detect certificate is to be issued (7 U.S.C. 24	ermine if a plant variety protection			
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	confidential until the certificate is issu				
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME			
Syngenta Seeds, Inc.	ON EXHIBITINE NOTICE	SENG 9170			
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)			
600 North Armstrong Place	208-465-8522	208-467-4559			
Boise, ID 83704	7. PVPO NUMBER.	_			
	#2007	00301			
8. Does the applicant own all rights to the variety? Mark an "X" in the	e appropriate block. If no, please expla	n. YES NO			
9. Is the applicant (individual or company) a U.S. national or a U.S. b	pased company? If no, give name of co	ountry. 7 YES NO			
10. Is the applicant the original owner? YES	NO If no, please answer one	of the following:			
a. If the original rights to variety were owned by individual(s), is ((are) the original owner(s) a U.S. Nationa	nl(s)?			
YES NO If no, give name of country					
b. If the original rights to variety were owned by a company(ies) YES	, is (are) the original owner(s) a U.S. bas NO If no, give name of countr				
L_i l					
11. Additional explanation on ownership (Trace ownership from origin	nal breeder to current owner. Use the re	verse for extra space if needed):			
SENG 9170 was bred and developed by plant	breeders employed by Syr	ngenta Seeds, Inc. By			
agreement between the employee and Synge	nta Seeds, Inc., all rights to	any invention, discovery			
or development made by the employee while a Syngenta Seeds, Inc., with no rights retained it	employed by Syngenta Sec by the employee	eds were assigned to			
	oy and omproyou.				
PLEASE NOTE:					
Plant variety protection can only be afforded to the owners (not licens	-				
 If the rights to the variety are owned by the original breeder, that penational of a country which affords similar protection to nationals of 	erson must be a U.S. national, national of the U.S. for the same genus and specie	f a UPOV member country, or es.			
If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a c genus and species.	red the original breeder(s), the company country which affords similar protection to	must be U.S. based, owned by a nationals of the U.S. for the same			
3. If the applicant is an owner who is not the original owner, both the o	original owner and the applicant must m	eet one of the above criteria.			
The original breeder/owner may be the individual or company who dir Act for definitions.	rected the final breeding. See Section 4	(a)(2) of the Plant Variety Protection			
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, control number. The valid OMB control number for this information collection is 0581-0055. including the time for reviewing the instructions, searching existing data sources, gathering a	The time required to complete this information collect	ion is estimated to average 0.1 hour per menores			

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> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY **PLANT VARIETY PROTECTION OFFICE** BELTSVILLE, MD 20705

EXHIBIT F

NAME OF OWNER (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	TEMPORARY OR EXPERIMENTAL DESIGNATION	
Syngenta Seeds, Inc.	COO N. d. A Place		
	600 North Armstrong Place Boise, ID 83704	VARIETY NAME SENG 9170	
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	FOR OFFICIAL USE ONLY	
Kim Briggs	6338 Highway 20-26 Nampa, ID 83687	#200700301	

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

H-/8-2007